

What is claimed is:

1. A substantially purified nucleic acid molecule that encodes a protein comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 4 and 48 through 50.

2. The substantially purified nucleic acid molecule of claim 1, wherein said protein is operably linked to a chloroplast transit peptide-encoding sequence.

3. The substantially purified nucleic acid molecule of claim 1, wherein said nucleic acid molecule (A) hybridizes under moderate stringency conditions to a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1 through 3, 5 through 47, and complements thereof, or (B) has greater than 85% identity to a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 1 through 3, 5 through 47, and complements thereof.

4. The substantially purified nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises: (A) a promoter; and (B) a heterologous nucleic acid molecule that encodes an amino sequence selected from the group consisting of SEQ ID NOs: 4 and 48 through 50.

5. A transformed cell comprising the nucleic acid molecule of claim 4.

6. An antibody capable of specifically binding a protein comprising an amino acid sequence selected from the group consisting of SEQ ID NOs: 4, 48 and 49.

7. A transgenic plant comprising the nucleic acid molecule of claim 4.

8. Seed derived from a transgenic plant of claim 7.

9. A method of producing a transgenic plant having seed with an altered isoprenoid compound level comprising: (A) transforming the plant with a nucleic acid molecule to produce a transgenic plant, wherein the nucleic acid molecule encodes a protein with an amino acid sequence selected from the group consisting of SEQ ID NOs: 4 and 48-50; and (B) growing the transgenic plant.

10. The method of claim 9 wherein said nucleic acid molecule is in an antisense orientation.